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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/560,176	12/09/2005	Yasumasa Hamada	Q92002	1439

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2100 PENNSYLVANIA AVE. NW
WASHINGTON, DC 20037-3213

EXAMINER	
ZUCKER, PAUL A	

ART UNIT	PAPER NUMBER
1621	

MAIL DATE	DELIVERY MODE
12/03/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/560,176	HAMADA ET AL.	
	Examiner	Art Unit	
	Paul A. Zucker	1621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 October 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-7* is/are pending in the application.

4a) Of the above claim(s) *4-7* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☒ Claim(s) *1-7* are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *12/9/05*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Group I (Claims 1-3) in the reply filed on 29 October 2008 is acknowledged. Claims 4-7 are held withdrawn from consideration as being drawn to non-elected subject matter.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-3 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 1 appears to require a "protecting reaction" to produce an *optionally* protected alcohol. It is therefore unclear whether the "protection reaction" is, in fact, required since the product of the reaction is optional. In addition, it is unclear what is meant by "protecting reaction". Claim 1 and its dependents are therefore rendered indefinite

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nelson (US 3,864,387 02-1975) when considered with Umezawa et al (JP 001-275541 11-1989) and Solomons (Organic Chemistry, 5th Edition, 1992. pages 240-242).

Instantly claimed is a process for producing (2R)-2-propyloctanoic acid, which comprises subjecting (2R)-2-hexyloxirane to a two-carbon adding reaction to convert it to a compound represented by formula (I): wherein X represents an optionally protected hydroxyl group, and then subjecting the compound to a one-carbon adding reaction to convert it to (2R)-2-propyloctanamide, followed by recrystallization and hydrolysis.

Nelson teaches (Column 43, line 61-column 44, line 9) a method for producing branched carboxylic acids such as 2-propyloctanoic acid by reaction of a branched alkyl halide with sodium cyanide to form a nitrile and hydrolysis of the nitrile to the acid. The Examiner notes that intermediate formation of the corresponding amide is a necessary consequence of the amide hydrolysis. Purification of a solid intermediate by recrystallization is obvious.

Nelson is silent with regard to the source of the required halide or other suitably 4-substituted decane required in order to use his synthetic approach.

Umezawa, however, teaches (Abstract) the reaction of an optically active oxirane such as (R)-(+)-1, 2-epoxyoctane, obtained by bioenzymatic oxidation of the olefin, with ethyl magnesium bromide in the presence of a copper catalyst to give the optically active 4-decanol.

Neither Nelson nor Umezawa teach the use of a protected alcohol for the conversion of Umezawa's alcohol to the instantly required conversion to the cyano compound.

Solomons, however, teaches (Page 243, line 12) the conversion of a halide to the corresponding nitrile via an S_N2 reaction as required by the process of Nelson. Solomons further teaches (Page 241, lines 1-14) that sulfonates, as conjugate bases of very strong acids, can be used instead of halides as leaving groups. In addition, by use of the sulfonates, the configuration of the carbon bearing the hydroxyl group is left undisturbed.

Thus one of ordinary skill in the art, seeking to implement the process for production of 2-propyloctanoic acid taught by Nelson, would have been motivated to employ the teachings of Umezawa and Solomons. There would have been a reasonable expectation for success because of the specific relevance of their teachings.

Thus the instantly claimed process would have been obvious to one of ordinary skill in the art.

Conclusion

4. Claims 1-3 are pending. Claims 1-3 are rejected. Claims 4-7 are held withdrawn from consideration as being drawn to non-elected subject matter.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul A. Zucker whose telephone number is 571-272-0650. The examiner can normally be reached on Monday-Friday 5:30-3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel Sullivan can be reached on 571-272-0779. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Paul A. Zucker/
Primary Examiner, Art Unit 1621